

REMARKS

This is in response to the Office Action that was mailed on April 21, 2006. Claim 1 is amended to more particularly point out Applicant's invention. See e.g. specification, page 9, lines 8-10 ("the electrolytic solution 20 is fed out from the solution tank 32 and supplied into the electrolytic treatment bath 26"). Claim 3 is likewise amended to more particularly point out Applicant's invention. See e.g. specification, page 13, lines 16-19 ("A correction value is added to the measured value PV_b in order to correct the error of the measuring device or the measuring method. After the correction, the corrected measured value PV_b is displayed on a display panel."). Claim 4 is rewritten in independent form – without change of scope. No new matter is introduced by this Amendment, and no new issues are raised thereby. Accordingly, entry of this Amendment – to place the application into condition for allowance or into better condition for appeal – is in order and is respectfully solicited. Claims 1-6 remain pending in the application.

Claims 1-6 were rejected under 35 USC § 103(a) as being unpatentable over "the admission in the background section of the specification of the instant application (page 1 line 14 – page 2 line 8" in view of US 6,521,112 B1 (Balisky). The rejection is respectfully traversed.

CLAIMS 1-6:

A crucial part of the rejection of record is the Examiner's allegation that Applicant admits that "measuring a salt concentration of salt which is generated by ionizing part of said metallic material in said electrolytic solution in said electrolytic treatment" is known. ***The portion of the specification upon which the Examiner relies says nothing about ionizing part of the metallic material in an electrolytic solution.*** Applicant has denied that he has made the alleged admission. The Examiner's response is that "the electrolytic roughening of the admitted prior art would inherently include generating a salt concentration by ionizing" metallic material in an electrolytic solution. Thus, ***instead of demonstrating that Applicant made the admission which is crucial to the rejection of record, the Examiner interjects his unsubstantiated opinion about***

an effect of electrolytic roughening. In order to have a sustainable rejection, it is respectfully submitted that the Examiner must provide evidence that electrolytic roughening would inherently generate a salt concentration by ionizing metallic material. How much and what type of “roughening” does the Examiner have in mind? Is the salt concentration that is generated by the Examiner’s roughening substantial or negligible? For the Examiner to justify depriving Applicant of his right to a patent on the present invention, more evidence is needed than the Examiner has so far provided.

Another crucial feature of the rejection of claims 1-6 stated in the Office Action is the allegation that using a controller would inherently include adding dilution liquid or fresh acid. Which is it? That is, would using a controller allegedly inherently include adding dilution liquid? Or would using a controller allegedly inherently include adding fresh acid? In the Final Rejection, the Examiner does not answer these questions. The Examiner instead adds the surprising – unsubstantiated – assertion that “those are the *only two possible ways* of controlling the concentration of the acid”. How about distilling off some of the liquid, or adding alkaline material? Again the Examiner has failed to provide evidence sufficient to justify depriving Applicant of the patent to which he is entitled.

Clearly, the Examiner has failed to state a sustainable rejection against any of claims 1-6 herein.

CLAIM 1

Claim 1 in its present form is characterized by the fact that measuring takes place in an electrolytic treatment bath and concentration treatment takes place in a solution tank. These characteristics maintain a concentration of electrolytic solution constant in the electrolytic treatment baths. Specification, page 8, line 23 to page 9, line 15. The references of record fail to teach or suggest this technological feature and effect. Furthermore, the references of record do not suggest the feature of an overflow pipe (34) provided with an upper portion of an electrolytic treatment bath (26) to circulate electrolytic solution (20) between the solution tank (32) and the electrolytic treatment bath (26) so as to prevent the electrolytic solution (20) from overflowing from the electrolytic treatment bath (26). Specification, page 8, line 24 to page 9, line 2. Also,

the prior art of record does not disclose the effect that the water level of the electrolytic solution (20) is maintained in the electrolytic treatment bath (26) generated by this feature (“adding at least one of a diluting liquid and a fresh acid to said electrolytic solution in said solution tank according to said measured acid concentration, said measured salt concentration, and a current value of an electrolytic current supplied during said electrolytic treatment; and, after this addition step, feeding said electrolytic solution in said solution tank to said electrolytic treatment bath”).

CLAIMS 2-6:

Claims 2-6 are not properly rejected for the additional reason that their rejection depends on the broad statement in the Office Action of November 16, 2005 that “the method of the admitted prior art in view of Balisky would inherently include calculating a feed cycle of adding a predetermined amount of said diluting liquid from said measured salt concentration and said current value”. In the Amendment filed on March 16, 2006, the Examiner was requested to identify the portion of the admitted prior art or of the Balisky disclosure which deals with or suggests or inherently discloses calculation of feed cycles. The Examiner has yet to identify the precise source of the allegedly inherency in question. ***Please identify the portion of the admitted prior art or of the Balisky disclosure which deals with or suggests or inherently discloses calculation of feed cycles.***

CLAIM 3:

The feature of adjusting the concentration of reaction solution to control chemical reaction may be considered to be, in general, common to the present invention and Balisky. However, the present invention corrects the measured concentration in consideration of the measurement apparatus and method (“adding a correction value to said measured acid concentration, to obtain a corrected acid concentration, said corrected acid concentration being set as a new measured acid concentration; calculating a difference from said new measured acid concentration to a target acid concentration; and adding said fresh acid to said electrolytic

solution when said difference is larger than a predetermined limit value”). Specification, starting at page 13, line 16. Balisky fails to suggest such correction of the concentration.

CLAIMS 4-6:

In rejecting claim 4 and the claims that depend therefrom, the Examiner argues “that claim 4 does not set forth any steps”. In order to enable the Examiner to more readily appreciate the steps set forth in claim 4, claim 4 is rewritten in independent form.

CONCLUSION:

Applicants respectfully submit that at least because the rejection as stated by the Examiner depends upon alleged “admissions” which are expressly denied by Applicant, the Examiner has failed to state a sustainable rejection against any of claims 1-6 herein. Applicant has additionally pointed out other substantive defects in the rejection of record. Withdrawal of the rejection of record, and passage of this application to Issue, are respectfully solicited.


Contact

If there are any questions, the Examiner is invited to contact Richard Gallagher, Registration No. 28,781, at (703) 205-8008.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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